This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims

1. (Currently Amended) A method for selecting one of multiple data paths to a device, comprising:

selecting one of multiple paths indicated as enabled to transmit data, wherein a path is indicated as enabled or disabled;

gathering transfer time data for multiple transfer sizes for each enabled path capable of being selected, wherein the transfer size is a size of the data being transferred in one transfer operation; [[and]]

~~indicating a~~ determining one path currently indicated as enabled to be selected to transfer data for a given transfer size ~~as disabled for the given transfer size having~~ that has transfer time data for the given transfer size satisfying a threshold transfer time[[,]]; and

indicating the determined path as disabled for the given transfer size, wherein paths indicated as disabled for given transfer sizes are not capable of being selected to use to transmit data having the given transfer size, wherein one path is capable of being concurrently indicated as disabled for a first transfer size and enabled for a second transfer size.

2. (Original) The method of claim 1, further comprising:

indicating one disabled path as enabled after performing a threshold number of transfer operations.

3. (Currently Amended) The method of claim 2, ~~further comprising:~~ wherein the path indicated as disabled is disabled ~~disabling the path~~ for a first threshold number of transfer operations if the ~~path has a~~ transfer data time for the path satisfies [[satisfying[[a first threshold[[;]] and is disabled ~~disabling the path~~ for a second threshold number of transfer operations if the ~~path has a~~ transfer data time for the path satisfies [[satisfying]] a second threshold.

4. (Canceled)

5. (Previously Presented) A method for selecting one of multiple data paths to a device, comprising:

selecting one of multiple paths indicated as enabled to transmit data, wherein a path is indicated as enabled or disabled;

for each enabled path, gathering a cumulative transfer time for all transfer operations during a measurement period through the path and a cumulative number of the transfer operations during the measurement period; and

for each enabled path determining the average cumulative transfer time for the measurement period by dividing the cumulative time by the cumulative number of transfers; and

indicating one of the paths as disabled if the average cumulative transfer time for the path satisfies a threshold.

6. (Original) The method of claim 5, wherein the measurement period comprises a number of transfer operations for all paths, wherein the determination to disable paths occurs after the number of transfer operations in the measurement period has occurred, and further comprising starting another measurement period to gather transfer time data after determining paths to disable.

7. (Original) The method of claim 5, wherein transfer time data is gathered by path and transfer size, and wherein the average cumulative transfer time is calculated for each enabled path and for at least one transfer size.

8. (Original) The method of claim 7, wherein the measurement period comprises a number of transfer operations for all paths for a transfer size, wherein the determination to disable paths for a transfer size occurs after the number of transfer operations in the measurement period has occurred, and further comprising starting another measurement period to gather transfer time data for the transfer size after determining paths to disable for the transfer size.

9. (Original) The method of claim 5, wherein the transfer time is measured from the time the transfer is sent to the device to the time a response is received from the device indicating that the transfer completed, further comprising adding the transfer time for a transfer transmitted down the path to the cumulative transfer time for the path.

10. (Original) The method of claim 5, further comprising:

for each enabled path, determining a best average transfer time from the average cumulative transfer times for all paths, wherein determining whether the average cumulative transfer time for one path satisfies the threshold comprises determining whether the average cumulative transfer time for the path exceeds the best average transfer time by a percentage amount.

11. (Original) The method of claim 10, wherein determining whether the average cumulative transfer time satisfies the threshold further comprises disabling the path for a first number of transfer operations if the average cumulative transfer time for the path exceeds the best average transfer time by a first percentage amount and disabling the path for a second number of transfer operations if the average cumulative transfer time for the path exceeds the best average transfer time by a second percentage amount.

12. (Original) The method of claim 1, wherein the multiple paths comprise multiple paths between a first controller and a second controller, and wherein one path is selected to transmit updates to a primary storage area managed by the first controller to the second controller to store in a secondary storage area.

13. (Currently Amended) The method of claim 11, wherein transfer time data is gathered by path and a size of [[the]] an update, wherein a path is disabled for a given update size and wherein the path is capable of being enabled for at least one other update size.

14. (Original) The method of claim 1 wherein the paths extend through a network.

15. (Currently Amended) A system for selecting one of multiple data paths to a device, comprising:

means for selecting one of multiple paths indicated as enabled to transmit data, wherein a path is indicated as enabled or disabled;

means for gathering transfer time data for multiple transfer sizes for each enabled path capable of being selected, wherein the transfer size is a size of the data being transferred in one transfer operation; [[and]]

means for determining one ~~indicating a~~ path currently indicated as enabled to be selected to transfer data for a given transfer size ~~as disabled for the given transfer size having~~ that has transfer time data for the given transfer size satisfying a threshold transfer time[[,]]; and

means for indicating the determined path as disabled for the given transfer size, wherein paths indicated as disabled are not capable of being selected to use to transmit data having the given transfer size, wherein one path is capable of being concurrently indicated as disabled for a first transfer size and enabled for a second transfer size.

16. (Original) The system of claim 15, further comprising:

means for indicating one disabled path as enabled after performing a threshold number of transfer operations.

17. (Currently Amended) The system of claim 16, ~~further comprising:~~ wherein the path indicated as disabled is disabled ~~means for disabling the path~~ for a first threshold number of transfer operations if the ~~path has a~~ transfer data time for the path satisfies [[satisfying]] a first threshold[[;]] and ~~means for disabling the path~~ is disabled for a second threshold number of transfer operations if the ~~path has a~~ transfer data time for the path satisfies [[satisfying]] a second threshold.

18. (Canceled)

19. (Previously Presented) A system for selecting one of multiple data paths to a device, comprising:

means for selecting one of multiple paths indicated as enabled to transmit data, wherein a path is indicated as enabled or disabled;

means for gathering a cumulative transfer time for all transfer operations during a measurement period through the path and a cumulative number of the transfer operations during the measurement period for each enabled path; and

means for determining the average cumulative transfer time for the measurement period by dividing the cumulative time by the cumulative number of transfers for each enabled path; and

means for indicating one of the paths as disabled if the average cumulative transfer time for the path satisfies a threshold.

20. (Original) The system of claim 19, wherein the measurement period comprises a number of transfer operations for all paths, wherein the determination to disable paths occurs after the number of transfer operations in the measurement period has occurred, and further comprising means for starting another measurement period to gather transfer time data after determining paths to disable.

21. (Original) The system of claim 19, wherein transfer time data is gathered by path and transfer size, and wherein the average cumulative transfer time is calculated for each enabled path and for at least one transfer size.

22. (Original) The system of claim 21, wherein the measurement period comprises a number of transfer operations for all paths for a transfer size, wherein the determination to disable paths for a transfer size occurs after the number of transfer operations in the measurement period has occurred, and further comprising means for starting another measurement period to gather transfer time data for the transfer size after determining paths to disable for the transfer size.

23. (Original) The system of claim 19, wherein the transfer time is measured from the time the transfer is sent to the device to the time a response is received from the device indicating

that the transfer completed, further comprising means for adding the transfer time for a transfer transmitted down the path to the cumulative transfer time for the path.

24. (Original) The system of claim 19, further comprising:

means for determining a best average transfer time from the average cumulative transfer times for all paths for each enabled path, wherein the means for determining whether the average cumulative transfer time for one path satisfies the threshold comprises means for determining whether the average cumulative transfer time for the path exceeds the best average transfer time by a percentage amount.

25. (Original) The system of claim 24, wherein the means for determining whether the average cumulative transfer time satisfies the threshold further comprises means for disabling the path for a first number of transfer operations if the average cumulative transfer time for the path exceeds the best average transfer time by a first percentage amount and disabling the path for a second number of transfer operations if the average cumulative transfer time for the path exceeds the best average transfer time by a second percentage amount.

26. (Original) The system of claim 15, wherein the multiple paths comprise multiple paths between a first controller and a second controller, and wherein one path is selected to transmit updates to a primary storage area managed by the first controller to the second controller to store in a secondary storage area.

27. (Original) The system of claim 25, wherein transfer time data is gathered by path and a size of [[the]] an update, wherein a path is disabled for a given update size and wherein the path is capable of being enabled for at least one other update size.

28. (Original) The system of claim 15, wherein the paths extend through a network.

29. (Currently Amended) An information bearing medium for selecting one of multiple data paths to a device, wherein the information bearing medium includes code capable of causing a processor to perform:

selecting one of multiple paths indicated as enabled to transmit data, wherein a path is indicated as enabled or disabled;

gathering transfer time data for multiple transfer sizes for each enabled path capable of being selected, wherein the transfer size is a size of the data being transferred in one transfer operation; and

determining one ~~indicating a~~ path currently indicated as enabled to be selected to transfer data for a given transfer size ~~as disabled for the given transfer size having~~ that has transfer time data for the given transfer size satisfying a threshold transfer time[[,]]; and

indicating the determined path as disabled for the given transfer size wherein paths indicated as disabled for given transfer sizes are not capable of being selected to use to transmit data having the given transfer size, wherein one path is capable of being indicated as disabled for a first transfer size and a same time capable of being indicated as enabled for a second transfer size.

30. (Original) The information bearing medium of claim 29, further capable of causing the processor to perform:

indicating one disabled path as enabled after performing a threshold number of transfer operations.

31. (Currently Amended) The information bearing medium of claim 30, wherein the path indicated as disabled is disabled ~~further capable of causing the processor to perform: disabling the path~~ for a first threshold number of transfer operations if the ~~path has a~~ transfer data time for the path satisfies [[satisfying]] a first threshold[[;]] and disabling the path for a second threshold number of transfer operations if the ~~path has a~~ transfer data time for the path satisfies [[satisfying]] a second threshold.

32. (Canceled)

33. (Previously Presented) An information bearing medium for selecting one of multiple data paths to a device, wherein the information bearing medium includes code capable of causing a processor to perform:

selecting one of multiple paths indicated as enabled to transmit data, wherein a path is indicated as enabled or disabled;

for each enabled path, gathering a cumulative transfer time for all transfer operations during a measurement period through the path and a cumulative number of the transfer operations during the measurement period; and

for each enabled path determining the average cumulative transfer time for the measurement period by dividing the cumulative time by the cumulative number of transfers; and

indicating the path as disabled if the average cumulative transfer time for the path satisfies a threshold.

34. (Original) The information bearing medium of claim 33, wherein the measurement period comprises a number of transfer operations for all paths, wherein the determination to disable paths occurs after the number of transfer operations in the measurement period has occurred, and further causing the processor to perform starting another measurement period to gather transfer time data after determining paths to disable.

35. (Original) The information bearing medium of claim 33, wherein transfer time data is gathered by path and transfer size, and wherein the average cumulative transfer time is calculated for each enabled path and for at least one transfer size.

36. (Original) The information bearing medium of claim 35, wherein the measurement period comprises a number of transfer operations for all paths for a transfer size, wherein the determination to disable paths for a transfer size occurs after the number of transfer operations in the measurement period has occurred, and further causing the processor to perform starting another measurement period to gather transfer time data for the transfer size after determining paths to disable for the transfer size.

37. (Original) The information bearing medium of claim 33, wherein the transfer time is measured from the time the transfer is sent to the device to the time a response is received from the device indicating that the transfer completed, and further causing the processor to

perform adding the transfer time for a transfer transmitted down the path to the cumulative transfer time for the path.

38. (Original) The information bearing medium of claim 33, and further causing the processor to perform:

for each enabled path, determining a best average transfer time from the average cumulative transfer times for all paths, wherein determining whether the average cumulative transfer time for one path satisfies the threshold comprises determining whether the average cumulative transfer time for the path exceeds the best average transfer time by a percentage amount.

39. (Original) The information bearing medium of claim 38, wherein determining whether the average cumulative transfer time satisfies the threshold further comprises disabling the path for a first number of transfer operations if the average cumulative transfer time for the path exceeds the best average transfer time by a first percentage amount and disabling the path for a second number of transfer operations if the average cumulative transfer time for the path exceeds the best average transfer time by a second percentage amount.

40. (Original) The information bearing medium of claim 29, wherein the multiple paths comprise multiple paths between a first controller and a second controller, and wherein one path is selected to transmit updates to a primary storage area managed by the first controller to the second controller to store in a secondary storage area.

41. (Currently Amended) The information bearing medium of claim 39, wherein transfer time data is gathered by path and a size of [[the]] an update, wherein a path is disabled for a given update size and wherein the path is capable of being enabled for at least one other update size.

42. (Original) The information bearing medium of claim 29, wherein the paths extend through a network.

43. (New) The method of claim 1, wherein the threshold is satisfied if a percentage of a first average transfer time for the given path exceeds second average transfer time.

44. (New) The system of claim 15, wherein the threshold is satisfied if a percentage of a first average transfer time for the given path exceeds second average transfer time.

45. (New) The information bearing medium of claim 29, wherein the threshold is satisfied if a percentage of a first average transfer time for the given path exceeds second average transfer time.